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Inventor: Sterling SMITH

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REMARKS

Reconsideration of this application is respectfully requested in view of the following remarks.

Claims 1-15 are pending in this application. In this Request for Reconsideration, no claims have been amended, canceled, or added. Accordingly, claims 1-15 will be pending upon entry of this Request for Reconsideration. For the Examiner's convenience, Applicant has included the above listing of the currently pending claims.

In the final Office Action mailed June 12, 2007, the Examiner allowed claims 6 and 15, and rejected claims 1-5 and 7-14 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,965,531 to Riley ("Riley") in view of U.S. Patent No. 5,825,253 to Mathe et al. ("Mathe"). Applicant acknowledges with thanks the indication of allowed claims 6 and 15.

Regarding the § 103 rejection, Applicant respectfully traverses the rejection for the reasons set forth below. In particular, with respect to independent claims 1 and 7 and dependent claims 5 and 14, Applicant respectfully submits that both Riley and Mathe fail to teach or suggest at least two patentable features: (1) a means for adjusting said period control word that is independent of the noise-shaped quantizer; and (2) a period offset that is generated in accordance with the output clock of the divider.

Regarding the first feature, Riley discloses a sigma-delta modulator 102 having mux 204 and blocks 208 and 210. In addition, as correctly noted by the Examiner, "mux 204 and blocks 108, 210...are part of the sigma-delta modulator." (Final Office Action, page 3, lines 7-8.)

However, the Examiner erroneously regards the "sigma-delta modulator 102" and "mux 204 and blocks 208, 210" as the "noise-shaped quantizer" and "means for adjusting said period control LEGAL US B# 76412131.]

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word," respectively, that are recited in independent claims 1 and 7. In claims 1 and 7. though, the means for adjusting said period control word is not part of the noise-shaped quantizer, but rather is independent thereof. To the contrary, the mux 204 and blocks 208, 210 of Riley, as part of the delta-sigma quantizer, would be employed for doing nothing more than quantization. It is therefore illogic to correlate part of one element to another element recited independently.

Regarding the second feature, Riley discloses that the positive reference signal (+REF) and the negative reference signal (-REF) are generated in dependence upon the state of the ratio control signal b(t) at the output of the sigma-delta modulator 102. (Column 5, lines 6-16.)

Apparently, the selection of +REF and –REF is therefore not dependent on the output clock of the divider 106. In contrast, in the present invention, dependent claims 5 and 14 recite "an offset generator for generating a period offset in response to said output clock; and an adder for generating said adjusted period control word by means of adding said period offset to said period nominal." In other words, the period offset is generated in accordance with the output clock of the divider directly and used to adjust the period control word.

Applicant therefore respectfully submits that independent claims 1 and 7 are patentable over the cited prior art. In addition, Applicant respectfully submits that dependent claims 2-5 and 8-14 are patentable due at least to their dependence on an allowable base claim and for the additional reasons above with respect to dependent claims 5 and 14. Thus, Applicant respectfully requests reconsideration of this application and withdrawal of the § 103 rejections.

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In view of the foregoing, all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone Applicant's undersigned representative at the number listed below.

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Respectfully submitted,

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